

















Standards		Lessons	Teacher Notes
<b>Learning Targets for each Key Standard reflect the benchmark that students must learn during that grading period.</b>			
<b>4.OA.5</b> Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. <b>Learning Targets:</b> I can create a number pattern that follows a given rule. I can create a shape pattern that follows a given rule. I can identify features of patterns that are not stated in the rule itself.	▶ 1	<i>To address the KCAS Standards, the following should be included in instruction:</i> <b>Math Investigations:</b> <b>Unit 4</b> <ul style="list-style-type: none"> <li>• 2.1</li> <li>• 2.3A</li> <li>• 2.3</li> <li>• 2.4-2.5</li> <li>• 3.1-3.3</li> <li>• 3.4A</li> <li>• 4.1</li> </ul>	<a href="#"><u>Unit Planning</u></a>
 <b>4.NBT.5</b> - Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. <b>Learning Targets:</b>  I can multiply a number with up to 4 digits by a 1-digit number using my strategies.  I can multiply two 2-digit numbers using my strategies.  I can illustrate and explain multiplication calculations using equations, rectangular arrays and/or area models.	▶ 1	<p style="text-align: center;"><b>GAP LESSONS</b></p> <b>4.G.1</b> <a href="#"><u>Line Segments on the Geoboard</u></a> <b>4.G.2</b> <a href="#"><u>Angle Attributes and Measures</u></a> <a href="#"><u>Classifying Triangles</u></a> <b>4.G.3</b> <a href="#"><u>Practicing Symmetry</u></a> <a href="#"><u>Symmetry</u></a> <a href="#"><u>Get Symmetric</u></a> <b>4.MD.5</b> <a href="#"><u>Exploring Angles</u></a> <a href="#"><u>Using a Protractor</u></a> <b>4.MD.6</b> <a href="#"><u>Angle Practice and Review</u></a> <a href="#"><u>What's My Angle</u></a> <b>4.MD.7</b> <a href="#"><u>Adding and Subtracting Angles</u></a> <a href="#"><u>Interior Angles</u></a>	
 <b>4.NBT.6</b> - Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. <b>Learning Targets:</b>  I can find the whole number quotient of a division problem with up to four-digit dividends and one-digit divisors using my strategies.  I can illustrate and explain division calculations using equations, rectangular arrays, and/or area models.	▶ 2		
 <b>4.MD.1</b> - Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. <b>Learning Targets:</b>  I can describe the relationship between sizes of measurement units in the same measurement system.	▶ 1	<b>Ten Minute Math</b> <ul style="list-style-type: none"> <li>✓ Quick Images</li> <li>✓ Today's Number</li> </ul>	<b>KCAS Note 4.MD.1:</b> Units include: length (km, m, cm); mass (kg, g); weight (lb, oz); liquid volume (L, mL); time (hr, min, sec)

 I can convert measurements from larger units to smaller units within the same measurement system.		<b>Unit 7</b> <ul style="list-style-type: none"><li>3.5A-3.5B</li></ul> <p><b>GAP LESSONS</b></p>																			
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<b>4.MD.4 Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots.</b> <b>Learning Targets:</b> I can make a line plot that displays measurements in fractions of a unit. I can solve problems involving addition and subtraction of fractions using information presented in a line plot.	 2	<b>4.OA.5</b>  <a href="#">High Temperature Patterns that Grow</a> <a href="#">Developing Algebraic Thinking Using Manipulatives</a>  <b>4.MD.1</b> <a href="#">Measurement and Geometry</a>																			
<b>4.MD.5 - Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:</b> <b>a - An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a “one-degree angle,” and can be used to measure angles.</b> <b>b - An angle that turns through n one-degree angles is said to have an angle measure of n degrees.</b> <b>Learning Targets:</b> I can describe how angles are formed. I can explain how angles are measured. I can explain how the measurement of an angle relates to a fraction of a 360° circle. I can describe how the "degree" unit of measure is used to measure angles. I can express an angle measurement in terms of the number of one-degree angles in that angle.	 1	<b>Ten Minute Math</b> ✓ Practicing Place Value  <b>Unit 9</b> <ul style="list-style-type: none"><li>2.1-2.8</li><li>3.1-3.5</li></ul> <p><b>GAP LESSONS</b></p> <b>4.NBT.5</b> <a href="#">Multi-Digit Multiplication</a> <b>4.MD.1</b> <a href="#">Conversion Cards</a> <a href="#">Measurements</a>																			
<b>4.MD.6 - Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.</b> <b>Learning Targets:</b> I can use a protractor to measure an angle in whole-number degrees. I can sketch angles of a specified measure.	 1	<b>Ten Minute Math</b> ✓ Closest Estimate  <table><tr><th colspan="2">Recommended Assessments</th></tr><tr><td>U4 Session 2.1</td><td>4.G.2</td></tr><tr><td>U4 Session 2.3</td><td>4.G.1</td></tr><tr><td>U4 Session 2.3</td><td>4.G.2</td></tr><tr><td>U4 Session 2.4</td><td>4.G.1</td></tr><tr><td>U4 Session 3.1</td><td>4.MD.6</td></tr><tr><td>U4 Session 3.2</td><td>4.MD.6</td></tr><tr><td>U4 Session 3.2</td><td>4.MD.7</td></tr><tr><td>U4 Session 3.3</td><td>4.MD.6</td></tr></table>	Recommended Assessments		U4 Session 2.1	4.G.2	U4 Session 2.3	4.G.1	U4 Session 2.3	4.G.2	U4 Session 2.4	4.G.1	U4 Session 3.1	4.MD.6	U4 Session 3.2	4.MD.6	U4 Session 3.2	4.MD.7	U4 Session 3.3	4.MD.6	
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<b>4.MD.7 - Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.</b> <b>Learning Targets:</b> I can find an angle measure by adding the measurements of the smaller angles that make up the larger angle. I can use my addition and subtraction strategies to solve for an unknown angle on a diagram, in real-world and mathematical problems.	  1																				

<p><b>4.G.1 - Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.</b> <b>Learning Targets:</b> I can draw points, lines, line segments, rays, right angles, acute angles, obtuse angles, perpendicular and parallel lines. I can identify points, lines, line segments, rays, right angles, acute angles, obtuse angles, perpendicular and parallel lines in two-dimensional figures.</p>	<div><div>★</div><div>▶</div><div>1</div></div>	<table><tr><td>U4 Session 3.4A</td><td>4.MD.6</td></tr><tr><td>U4 Session 3.4A</td><td>4.G.1</td></tr><tr><td>U4 Session 4.1</td><td>4.G.3</td></tr><tr><td>U7 Session 3.5A</td><td>4.MD.1 </td></tr><tr><td>U7 Session 3.5B</td><td>4.MD.1 </td></tr><tr><td>U9 Session 2.1</td><td>4.OA.5</td></tr><tr><td>U9 Session 2.1</td><td>4.NBT.5 </td></tr><tr><td>U9 Session 2.2</td><td>4.OA.5</td></tr><tr><td>U9 Session 2.3</td><td>4.OA.5</td></tr><tr><td>U9 Session 2.4</td><td>4.NBT.5 </td></tr><tr><td>U9 Session 2.5</td><td>4.OA.5</td></tr><tr><td>U9 Session 2.6</td><td>4.OA.5</td></tr><tr><td>U9 Session 2.6</td><td>4.NBT.5 </td></tr><tr><td>U9 Session 2.8</td><td>4.NBT.5 </td></tr><tr><td>U9 Session 3.1</td><td>4.MD.4</td></tr><tr><td>U9 Session 3.2</td><td>4.MD.4</td></tr><tr><td>U9 Session 3.3</td><td>4.NBT.6 </td></tr><tr><td>U9 Session 3.5 EOU</td><td>4.OA.5</td></tr></table>	U4 Session 3.4A	4.MD.6	U4 Session 3.4A	4.G.1	U4 Session 4.1	4.G.3	U7 Session 3.5A	4.MD.1	U7 Session 3.5B	4.MD.1	U9 Session 2.1	4.OA.5	U9 Session 2.1	4.NBT.5	U9 Session 2.2	4.OA.5	U9 Session 2.3	4.OA.5	U9 Session 2.4	4.NBT.5	U9 Session 2.5	4.OA.5	U9 Session 2.6	4.OA.5	U9 Session 2.6	4.NBT.5	U9 Session 2.8	4.NBT.5	U9 Session 3.1	4.MD.4	U9 Session 3.2	4.MD.4	U9 Session 3.3	4.NBT.6	U9 Session 3.5 EOU	4.OA.5	<p><b>KCAS Note 4.G.1</b> When teaching geometry be intentional about having students identify points, lines, line segments, angles, and perpendicular and parallel lines throughout unit 4.</p>
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<p><b>4.G.2 - Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.</b> <b>Learning Targets:</b> I can classify a two-dimensional figure based on whether or not it has perpendicular or parallel lines. I can classify a two-dimensional figure based on the size of its angles. I can classify triangles as right triangles based on their characteristics.</p>	<div><div>★</div><div>▶</div><div>1</div></div>	<table><tr><td>U9 Session 2.2</td><td>4.OA.5</td></tr><tr><td>U9 Session 2.3</td><td>4.OA.5</td></tr><tr><td>U9 Session 2.4</td><td>4.NBT.5 </td></tr><tr><td>U9 Session 2.5</td><td>4.OA.5</td></tr><tr><td>U9 Session 2.6</td><td>4.OA.5</td></tr><tr><td>U9 Session 2.6</td><td>4.NBT.5 </td></tr><tr><td>U9 Session 2.8</td><td>4.NBT.5 </td></tr><tr><td>U9 Session 3.1</td><td>4.MD.4</td></tr><tr><td>U9 Session 3.2</td><td>4.MD.4</td></tr><tr><td>U9 Session 3.3</td><td>4.NBT.6 </td></tr><tr><td>U9 Session 3.5 EOU</td><td>4.OA.5</td></tr></table>	U9 Session 2.2	4.OA.5	U9 Session 2.3	4.OA.5	U9 Session 2.4	4.NBT.5	U9 Session 2.5	4.OA.5	U9 Session 2.6	4.OA.5	U9 Session 2.6	4.NBT.5	U9 Session 2.8	4.NBT.5	U9 Session 3.1	4.MD.4	U9 Session 3.2	4.MD.4	U9 Session 3.3	4.NBT.6	U9 Session 3.5 EOU	4.OA.5	<p><b>KCAS Note 4.G.2</b> In session 2.3, use the Names of Polygons chart in the unit plan. Skip LogoPaths in 2.3 and 2.4. In session 2.4, be intentional about identifying parallel and perpendicular lines. In session 2.5, recall the size of angles, parallel and perpendicular lines.</p>														
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<p><b>4.G.3 - Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.</b> <b>Learning Targets:</b> I can identify lines of symmetry on a two-dimensional figure. I can identify figures that have line symmetry. I can draw lines of symmetry on a two-dimensional figure.</p>	<div><div>★</div><div>▶</div><div>2</div></div>	<p>Vocabulary: point, line, ray, line segment, perpendicular lines, parallel lines, angel, right angle, acute angle, obtuse angle, interior angle, right triangle, protractor, vertex, symmetry, weight, mass, capacity, kilometer, meter, centimeter, kilogram, gram, pound, ounce, liter, milliliter, hour, minute, second, measurement system, number pattern, shape pattern, rule, multiply, rectangular arrays, area models, division, dividend, quotient, line plot, measurement</p> <p><a href="http://coedpages.uncc.edu/abpolly/math/core/core-vocab.pdf">http://coedpages.uncc.edu/abpolly/math/core/core-vocab.pdf</a></p>	<p><b>KCAS Note 4.G.3</b> In session 4.1, skip activity 3, Finding Area.</p>																																				
			<p><b>Standards addressed through Ten Minute Math:</b> Quick Images</p> <ul style="list-style-type: none"><li><b>4.G.1, 4.G.2, 4.G.3</b> Tailor questions to address the learning targets.</li></ul> <p>Today’s Number</p> <ul style="list-style-type: none"><li><b>4.NBT.4</b></li></ul> <p>Practicing Place Value</p> <ul style="list-style-type: none"><li><b>4.NBT.1</b> All numbers will need to be made whole numbers. Add intentional questions, requiring students to compare values as you moved right and left within a given number.</li></ul>																																				

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		<p>Measurement and Data Domain and Geometry standards are not assessed on the district MDA/MPA because the district assessments focus on the Number Domain.</p> <p>Operations and Algebraic Thinking – OA – is assessed on the district MDA/MPA.</p>	<ul style="list-style-type: none"><li>• <b>4.NBT.2</b> Teachers will need to be intentional about having students write numbers using base-ten numbers, number names, and expanded from daily.</li><li>• <b>4.OA.5</b> Teachers should tailor questioning to the learning targets regarding rules of a pattern.</li></ul> <p>Closest Estimate</p> <ul style="list-style-type: none"><li>• <b>4.NBT.4</b> Teachers should intentionally ask questions about students' use of different strategies.</li></ul>
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